



US EPA RECORDS CENTER REGION 5



467818

May 24, 2011

Mr. W. Owen Thompson
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Subject: Field Inspection and Analytical Results for the
DS Tributary Sediment Sampling
Detrex Corporation, Ashtabula, Ohio
Docket No. V-W-98-C-450

Dear Mr. Thompson:

On behalf of Detrex Corporation (Detrex), and in response an e-mail dated April 28, 2011 from the United States Environmental Protection Agency (USEPA) regarding the reported re-appearance of Dense Non-Aqueous Phase Liquid (DNAPL) in the DS Tributary just west of State Road, URS Corporation (URS) has prepared the following response letter.

Detrex installed sorbent booms in the DS Tributary on April 26, 2011. On April 29, 2011 URS and Detrex personnel completed a visual inspection of the DS Tributary both upstream and downstream of the area where the DNAPL re-appearance was reported. As part of the inspection, nine (9) surficial sediment grab samples were collected from six (6) locations west of State Road and three (3) locations east of State Road. A plan map showing the approximate locations of the sediment sampling locations is provided as **Attachment 1**. Samples collected from the DS Tributary west of State Road (downstream) were identified as SED-1 through SED-6. Samples collected from east of State Road (upstream) were identified as SED-7UP through SED-9UP. The sediment samples were subsequently placed in a cooler on ice and sent to Precision Analytical, Inc. (Precision) for analysis of Volatile Organic Compounds (VOCs - Method 8260) and Semi-Volatile Organic Compounds (SVOCs - Method 8270). Additionally, one of the samples (SED-2) was also analyzed for poly-chlorinated biphenyls (PCBs - Method 8082). Photographs of the sampling areas were taken and are provided in **Attachment 2**.

The analytical results were received from Precision on May 17, 2011. The results from the sediment sampling are summarized in the two tables provided as **Attachment 3 (Tables 1 & 2)**. The complete analytical report from Precision is provided as **Attachment 4**.

The results presented in **Attachment 3 (Tables 1 & 2)** were compared to the established CRGs for EU-5. Based on this comparison there were no CRG exceedances. Based on the field observations and sampling results, the reported DNAPL re-appearance is likely the result of residual DNAPL within the existing State Road culvert or within the soil matrix downstream of the existing State Road Bridge. The previous limited sediment removal, completed by Detrex in 2009, was focused within the DS Tributary channel and was limited to between 6 – 12 inches in depth. As part of this work effort, a total of approximately 47 cubic yards of material were removed and disposed as documented in the Sediment

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Mr. W. Owen Thompson
United States Environmental Protection Agency
May 24, 2011
Page 2 of 2

and DNAPL Delineation Report (URS, 2010). Further, analytical data from sampling completed in 2009 also indicated elevated levels of VOCs and SVOCs within the DS Tributary channel at similar concentrations to those reported in **Attachment 3**. It should also be noted that no soil removal in and around the State Road bridge structure has been completed in any previous remediation efforts, in order to maintain the integrity of the culvert. Additionally, samples collected from the upstream locations (SED-7UP through SED-9UP) had no detections of hexachlorobenzene or hexachlorobutadiene, and only TCE at very low concentrations. The TCE detections are likely attributable to cross contamination from the sampling equipment. Further, it is also noted that no sheen or DNAPL was observed in any of the upstream sample locations. However, a sheen was observed at downstream sample locations only after the streambed was disturbed. There is no continuous sheen as a result of residual DNAPL in the streambed.

Therefore, Detrex continues to assert that the recent DNAPL re-appearance in the DS Tributary west of State Road is not attributable to an ongoing source from the Detrex property. The reported re-appearance of DNAPL is likely a remnant of historical operations from upstream facilities and subsequent sediment contamination within the DS Tributary channel.

In addition, Detrex has also collected water samples from the two newly-installed DNAPL collection trenches located west of State Road in the DS Tributary. **Attachment 5** contains a summary of results (**Table 3**) from the March 2010 and recent April 29, 2011 sampling. The complete analytical report from Precision is also provided.

If you have any questions regarding this submittal, please do not hesitate to contact me at 216-622-2432 at your convenience.

Sincerely,

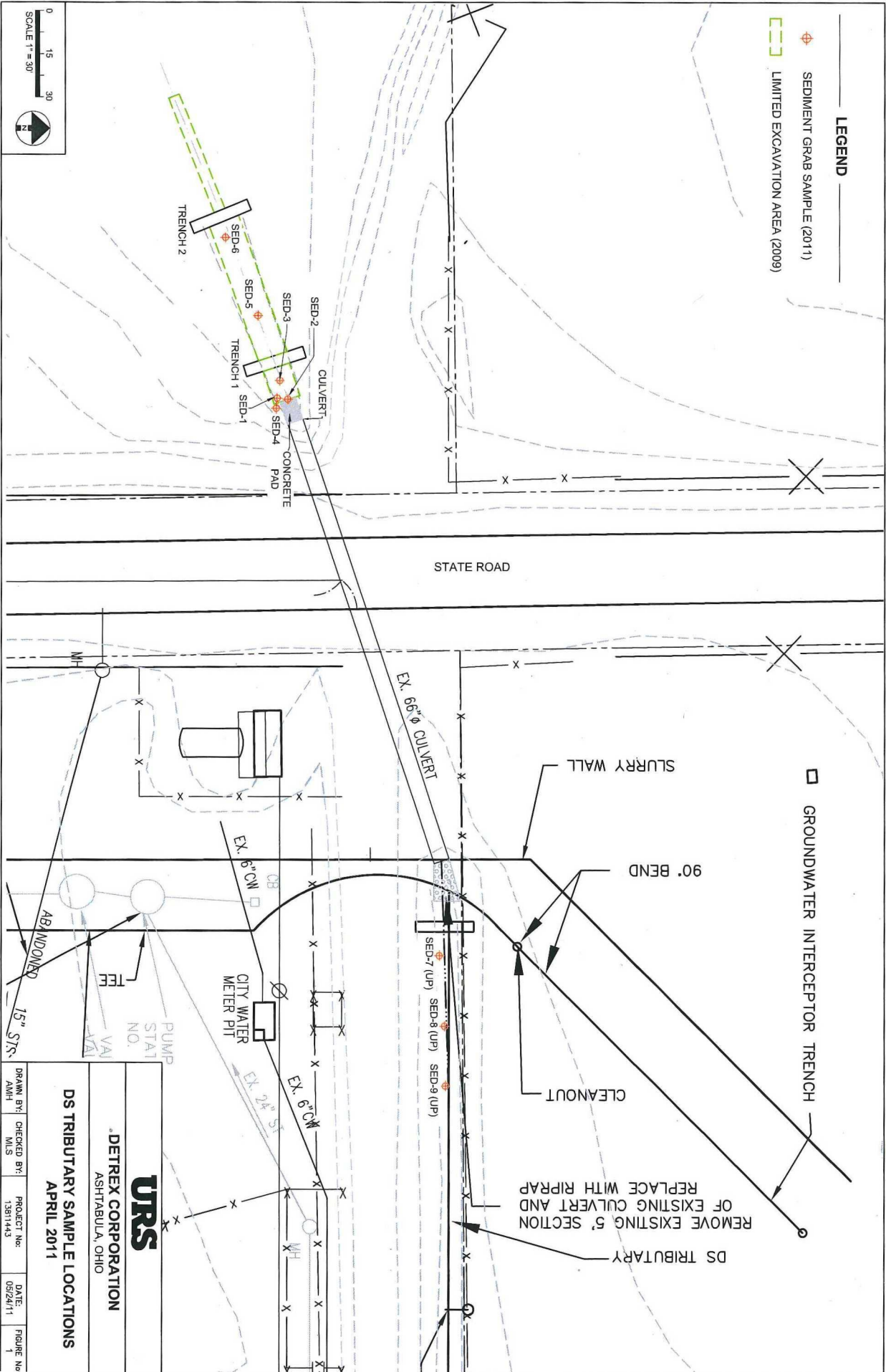
URS Corporation - Ohio

Martin L. Schmidt, Ph.D.
Vice President

Enclosure

cc: R. Currie – Detrex Corporation
T. Steib – Detrex Corporation
T. Doll – Detrex Corporation
R. Williams – Ohio EPA
W. Earle – SulTRAC
File

ATTACHMENT 1
PLAN MAP DEPICTING
SEDIMENT SAMPLING LOCATIONS



URS			
DETREX CORPORATION			
ASHTABULA, OHIO			
DS TRIBUTARY SAMPLE LOCATIONS			
APRIL 2011			
DRAWN BY:	CHECKED BY:	PROJECT NO.:	DATE:
AMH	MLS	13811443	09/25/11
FIGURE NO.			1

ATTACHMENT 2
PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG

Client Name:
Detrex Corporation

Site Location:
Ashtabula, Ohio

Project No.
13814613

Photo No.
1

Date:
04/29/11

Description:

Photo looking east.
Sample location Sed-2
taken directly in front of
culvert concrete lip.
Note: booms were installed
by Detrex Corporation.





PHOTOGRAPHIC LOG

Client Name:
Detrex Corporation

Site Location:
Ashtabula, Ohio

Project No.
13814613

Photo No.
2

Date:
04/29/11

Description:

Photo looking northeast.
Sample Sed-5 was taken in
the middle of the DS
Tributary channel
downstream of the first
collection trench (Trench-1)
Note: booms were installed
by Detrex Corporation.





PHOTOGRAPHIC LOG

Client Name:
Detrex Corporation

Site Location:
Ashtabula, Ohio

Project No.
13814613

Photo No.
3

Date:
04/29/11

Description:

Photo looking northwest, samples Sed-7 (up) and Sed (8) within the DS tributary channel, Sed-9 (up) is not pictured. Note the round concrete culvert east of State Road.



ATTACHMENT 3
TABLES 1 AND 2

Table 1
Summary Of Detected Chemicals In DS Tributary Sediment Samples West Of State Road
April 2011
Detrex Corporation
Ashtabula, Ohio

Parameter	Units	CRGs for EU-5	Sed 1 (W. State Rd.- South Side Culvert) 04/29/2011	Sed 2 (W. State Rd.- Lip of Culvert) 04/29/2011	Sed-3 (W. State Rd.- Middle 25 W. Culvert) 04/29/2011	Sed 4 (W. State Rd.- Near Stake S. Culvert) 04/29/2011	Sed 5 (W. State Rd.- W. of East Trench) 04/29/2011	Sed 6 (W. State Rd.- E. of West Trench) 04/29/2011
<u>Volatile Organics</u>								
1,1,2,2-Tetrachloroethane	mg/kg	102	2.03	0.361 U	0.450	0.0234	0.635	23.2
1,1,2-Trichloroethane	mg/kg		0.490 U	0.361 U	0.347 U	0.0181 U	0.494 U	0.452
1,1-Dichloroethene	mg/kg		0.490 U	0.361 U	0.347 U	0.0181 U	0.494 U	0.0671
Chloroethane	mg/kg		0.490 U	0.361 U	0.347 U	0.0283	0.494 U	0.0232 U
Chloroform	mg/kg		0.490 U	0.361 U	0.347 U	0.0181 U	0.494 U	0.105
cis-1,2-Dichloroethene	mg/kg	N/A	0.964	0.361 U	0.170	0.0181 U	8.41	24.4
Dibromochloromethane	mg/kg		0.490 U	0.361 U	0.347 U	0.117	0.494 U	0.201
Tetrachloroethene	mg/kg	392	7.86	1.67	0.705	0.0731	1.30	0.124
trans-1,2-Dichloroethene	mg/kg		0.490 U	0.361 U	0.347 U	0.0181 U	0.457	0.324
Trichloroethene	mg/kg	1854	1.85	0.311	0.384	0.0429	1.48	0.411
Vinyl Chloride	mg/kg		0.490 U	0.361 U	0.347 U	0.0181 U	0.603	1.38
<u>Semivolatile Organics</u>								
Benzo(k)fluoranthene	mg/kg		0.950 U	4.60 U	4.81 U	0.926 U	2.77 U	0.856 U
Chrysene	mg/kg		0.950 U	4.60 U	4.81 U	0.926 U	2.77 U	0.856 U
Fluoranthene	mg/kg		0.950 U	4.60 U	4.81 U	0.926 U	2.77 U	0.856 U
Hexachlorobenzene	mg/kg	39	9.78	16.20	6.18	7.86	17.2	4.44
Hexachlorobutadiene	mg/kg	N/A	3.67	4.60 U	8.51	2.77	7.59	1.35
Pyrene	mg/kg	N/A	0.950 U	4.60 U	4.81 U	0.926 U	2.77 U	0.856 U
<u>PCBs</u>								
Aroclor (all)	mg/kg		NS	6.46 U	NS	NS	NS	NS

Notes: **Bold** = Analyte detected above reporting limit

Underline = Concentration exceeds CRG value.

U = The analyte was analyzed for, but was not detected. Value shown is the sample reporting limit.

J = Estimated concentration because quality control criteria were not met.

N/A = No Applicable CRG

NS = The sample was not analyzed for the compound listed

Table 2
Summary Of Detected Chemicals In DS Tributary Sediment Samples East Of State Road
April 2011
Detrex Corporation
Ashtabula, Ohio

Parameter	Units	CRGs for EU-5	Sed 7 up (E. State Rd.-25' East of Culvert) 04/29/2011	Sed 8 up (E. State Rd.-50' East of Culvert) 04/29/2011	Sed 9 up (E. State Rd.-70' East of Culvert) 04/29/2011
<u>Volatile Organics</u>					
1,1,2,2-Tetrachloroethane	mg/kg	102	0.0112 U	0.0143 U	0.0169 U
1,1,2-Trichloroethane	mg/kg		0.0112 U	0.0143 U	0.0169 U
1,1-Dichloroethene	mg/kg		0.0112 U	0.0143 U	0.0169 U
Chloroethane	mg/kg		0.0112 U	0.0143 U	0.0169 U
Chloroform	mg/kg		0.0112 U	0.0143 U	0.0169 U
cis-1,2-Dichloroethene	mg/kg	N/A	0.964	0.0143 U	0.0169 U
Dibromochloromethane	mg/kg		0.0112 U	0.0143 U	0.0169 U
Tetrachloroethene	mg/kg	392	0.0112 U	0.0143 U	0.0169 U
trans-1,2-Dichloroethene	mg/kg		0.0112 U	0.0143 U	0.0169 U
Trichloroethene	mg/kg	1854	0.067	0.0143 U	0.0269
Vinyl Chloride	mg/kg		0.0112 U	0.0143 U	0.0169 U
<u>Semivolatile Organics</u>					
Benzo(k)fluoranthene	mg/kg		4.55 U	4.24 U	1.16
Chrysene	mg/kg		4.55 U	4.24 U	1.02
Fluoranthene	mg/kg		4.55 U	4.24 U	1.73
Hexachlorobenzene	mg/kg	39	4.55 U	4.24 U	6.18
Hexachlorobutadiene	mg/kg	N/A	4.55 U	4.24 U	8.51
Pyrene	mg/kg	N/A	4.55 U	4.24 U	1.64
<u>PCBs</u>					
Aroclor (all)	mg/kg		NS	NS	NS

Notes: **Bold** = Analyte detected above reporting limit

Underline = Concentration exceeds CRG value.

U = The analyte was analyzed for, but was not detected. Value shown is the sample reporting limit.

J = Estimated concentration because quality control criteria were not met.

N/A = No Applicable CRG

NS = The sample was not analyzed for the compound listed